



**EUROPEAN PATENT APPLICATION**

Application number: **94106659.9**

Int. Cl.<sup>5</sup>: **H04Q 7/04, H04B 7/26**

Date of filing: **28.04.94**

Priority: **12.05.93 JP 110544/93**  
**12.05.93 JP 110545/93**

Date of publication of application:  
**17.11.94 Bulletin 94/46**

Designated Contracting States:  
**DE GB SE**

Applicant: **NTT MOBILE COMMUNICATIONS  
NETWORK INC.**  
**Shin Nikko Bldg.,**  
**East Tower,**  
**2-10-1, Toranomon**  
**Minato-ku, Tokyo (JP)**

Inventor: **Nakajima, Nobuo, Esuteshitei  
Syonan**  
**Mutsuura Nibankan 210gou,**  
**Mutsuuracho**  
**Kanazawa-ku, Yokohama-shi, Kanagawa (JP)**  
Inventor: **Imamura, Kenji**  
**2-32-8, Takafuneda,**  
**Kanazawa-ku**  
**Yokohama-shi, Kanagawa (JP)**

Representative: **Hoffmann, Eckart**  
**Patentanwalt,**  
**Blumbach & Partner,**  
**Bahnhofstrasse 103**  
**D-82166 Gräfelfing (DE)**

**Hand-off method and mobile station for spread spectrum communications system.**

Radio zones (2a through 2d) are each assigned radio frequency channels of the number corresponding to the zone traffic, one frequency (f<sub>1</sub>) of the radio frequency channel is assigned in common to all radio zones, and radio channels of the same frequency are assigned spectrum spreading codes different for each zone. A mobile station is provided with two correlators (14 and 15). For example, if the received signal level lowers when the mobile station stays in the radio zone (2a) and is in conversation

over the channel of a frequency (f<sub>2</sub>), the mobile station once switches the communication to a channel of the common frequency (f<sub>1</sub>) and continues the communication using one of the correlators, while at the same time the mobile station scans spectrum spreading codes for control channels of the respective radio zones by the other correlator for measuring the received signal levels of the control channels and determines a destination radio zone which provides the maximum received signal level.

FIG. 5

